#### **Executive Order VR-102-A**

#### Exhibit 2

#### **Installation, Maintenance and Compliance Specifications**

This exhibit contains the specifications used for the proper installation and maintenance of the system by which compliance of the Gasoline Dispensing Facility (GDF) is to be determined.

#### **General Specifications**

- 1. The OPW System shall be installed and maintained according to the manufacturer's specifications and demonstrate compliance with the Certification and Test Procedures TP-201.3 Determination of 2 Inch H₂O Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities; Exhibit 4, Static Torque of Rotatable Phase I Adaptors; Exhibit 5, Pressure Integrity of Drop Tube/Drain Valve Assembly; and Exhibit 6, Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves. Testing shall be successfully conducted within 60 days of installation and at least once every three years thereafter; shorter time periods may be specified in accordance with local district rules and regulations.
- 2. During all Phase I deliveries there shall be at least one vapor recovery connection, between the cargo tank and the GDF storage tank into which fuel is being delivered, to ensure that vapor is returned to the cargo tank from the underground storage tank system.

#### Pressure/Vacuum Vent Valves For Storage Tank Vent Pipes

- 1. Vent pipes <u>may</u> be manifolded to produce a single vent outlet on which a single Pressure/Vacuum (P/V) Vent Valve is installed.
- 2. A maximum number of Pressure/Vacuum Vent Valves, not exceeding an additive leakrate of 0.17 CFH at 2.00 inches H<sub>2</sub>O, shall be used on any single GDF.
- 3. Vent pipe manifolds shall be constructed of steel pipe or an equivalent material that has been listed for use with gasoline. If a material other than steel is used the GDF operator shall make available information demonstrating that the material is compatible for use with gasoline. An example of a vent pipe manifold is shown in Figure 2Q. This example reflects only one allowable configuration. For example, a tee may be located either at the left, center or right side, and more or fewer vent pipes may be manifold together.
- 4. The vent pipe manifold shall be installed at a height not less than 12 feet above the grade used for gasoline cargo tank delivery operations and shall conform to all applicable fire regulations.
- 5. Each P/V Valve shall have permanently affixed to it a yellow or gold label with black lettering stating the following specifications:

Positive pressure setting:  $3.0 \pm 0.5$  inches  $H_2O$ Negative pressure setting:  $8.0 \pm 2.0$  inches  $H_2O$ Positive Leakrate: 0.05 CFH at 2.0 inches 20Negative Leakrate: 20.21 CFH at 20.0 inches 20.0

#### Rotatable Product and Vapor Recovery Adaptors

- 1. Rotatable product and vapor recovery adaptors shall maintain a minimum 360-degree rotation and average static torque not to exceed 108 pound-inch (9 pound-foot) when tested as specified in Exhibit 4.
- The vapor adaptor poppet shall not leak when closed. The absence of vapor leaks may be verified with the use of commercial liquid leak detection solution, or by bagging, when the vapor containment space of the underground storage tank is subjected to a non-zero gauge pressure. (Note: leak detection solution will detect leaks only when positive gauge pressure exists).

#### Vapor Recovery and Product Adaptor Dust Caps

1. Dust caps shall be installed on all Phase I tank adaptors.

#### **Drain Valve and Configuration**

1. The Drain Valve and it's configuration are designed to drain liquid directly into the drop tube and are therefore isolated from the underground storage tank ullage. When isolated and tested in accordance with Exhibit 5, the Drop Tube/Drain Valve Assembly shall not exceed 0.17 CFH at 2.00 inches H<sub>2</sub>O.

#### **Drop Tube Overfill Prevention Device**

- The Drop Tube Overfill Prevention Device (Overfill Device) is designed to restrict the flow of gasoline delivered to the underground storage at liquid levels greater than 95 percent of the total tank capacity. Seals on the device may allow vapor to escape to atmosphere during normal operation. When tested in accordance with Exhibit 5, the leak rate shall not exceed 0.17 CFH at 2.00 inches H<sub>2</sub>O.
- 2. The contractor or installing agency of the Overfill Device shall make available to the district the following measurements required for the installation of the device:
  - a. Tank Diameter (inches)
  - b. 95 percent tank level (inches, measured from tank bottom)
  - c. Installed location of the Overfill Device actuation mark (inches, from the tank bottom).
  - d. Tank capacity (in percent) where the Overfill Device actuation mark is installed. Note: In some instances, this figure may be less than 95 percent total tank capacity due to design requirements of the device. In this instance, the electronic tank level system may not reflect the location of the Overfill Device actuation mark.
- 3. No type of device shall be used at any time to reach into an installed drop tube and manually open, close or modify a Drop Tube Overfill Prevention Device.
- 4. Product deliveries, in which a storage tank is filled above the 95 percent liquid level and/or engages the Overfill Device shall be concluded immediately. At no time shall product deliveries be allowed to exceed the total tank capacity or discharge liquid into the underground piping system. Liquid levels in the tank shall be allowed to subside below the storage tank 95 percent level prior to delivering additional product.

5. In the case of a defect where an Overfill Device becomes lodged in the closed position after the storage tank liquid level has been allowed to subside, the device shall be removed from the storage tank for inspection and/or replacement.

#### **Vapor Recovery Riser Offset**

- 1. The vapor recovery tank riser may be offset from the tank connection to the vapor recovery Spill Container provided that the maximum horizontal distance (offset distance) does not exceed twenty (20) inches.
- 2. The vapor recovery riser may be offset up to the maximum allowable horizontal distance with use of commercially available, four (4) inch diameter steel pipe fittings.

#### **Gasket Seal Adaptor**

- A Gasket Seal Adaptor, used to produce a machined flat surface for a gasket seal shall be installed on the following required connections. As an option, an owner/operator may install the adaptor on other connections to ensure a flat surface exists.
  - a. Product Spill Container (required)
  - b. Tank Gauging Components (required)
  - c. Vapor Recovery Spill Container (optional)
  - d. Rotatable Adaptors (optional)
- 2. The Gasket Seal Adaptor shall provide a machined surface on which a gasket can seal by controlling jagged or rough cut riser pipe threads.

Figure 2A

Facility Compliance Specifications

Component	Test Method	Standard or Specification
Rotatable Phase I Adaptors	Exhibit 4	Minimum, 360-degree rotation Maximum, 108 pound-inch average static torque
Overfill Prevention Device	Exhibit 5	≤0.17 CFH at 2.00 inches H₂O
Drain Valve Assembly	Exhibit 5	≤0.17 CFH at 2.00 inches H₂O
UST, P/V Valve, Fittings, Adaptors, and Connections	TP-201.3	2.00 inches H <sub>2</sub> O – 5 minutes
Pressure/Vacuum Vent Valve	Exhibit 6	Positive Pressure: $3.0 \pm 0.5$ inches $H_2O$ Negative Pressure: $8.0 \pm 2.0$ inches $H_2O$ Leakrate: $\leq 0.05$ CFH at $+2.0$ inches $H_2O$ $\leq 0.21$ CFH at $-4.0$ inches $H_2O$

Figure 2B

OPW Recommended Maintenance Intervals for System Components

Component	Maintenance Interval
Spill Container And Drain Valve	Annually, See Figure 2E and Figure 2F.
Rotatable Phase I Adaptors	Annually, See Figure 2H and 2I.
Dust Caps	Annually, See Figure 2K.
Overfill Prevention Device	Annually, See Figure 2L.
Pressure/Vacuum Vent Valve	Annually, See Figure 2P.

Each GDF operator/owner shall keep a maintenance log at the facility. The maintenance log shall identify, in chronological order, the date, maintenance performed, maintenance company name, telephone and name of individual(s) conducting maintenance. An example of a Phase I Maintenance Log is shown in Figure 2R. Alternate forms may be used provided they contain the same minimum parameters identified in Figure 2R.

Figure 2C

Typical Product Side Installation Using OPW System

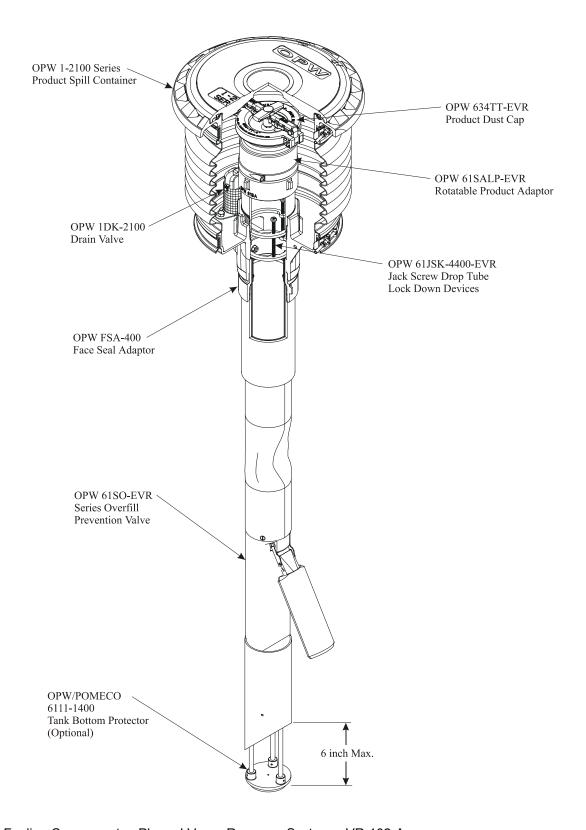
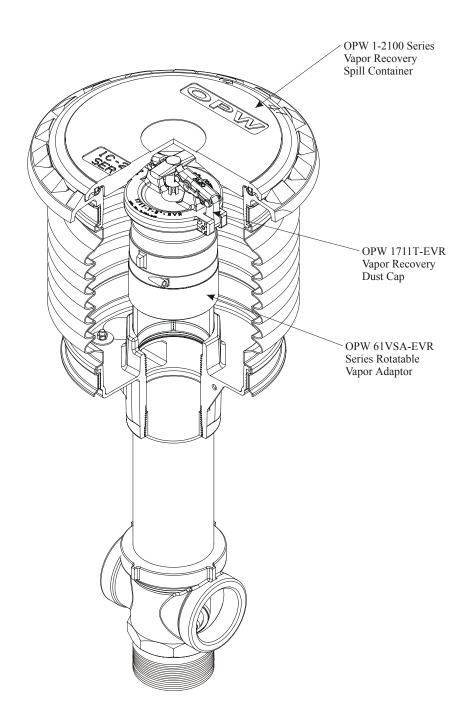


Figure 2D

Typical Vapor Recovery Installation Using OPW System



### Figure 2E

#### OPW 1,1C, & 1SC-2100 Series Spill Container

### OPW/POMECO Various Spill Container Configurations

## **Cover Options** Aluminum Cast Iron Cast Iron Sealable (OPW only) (POMECO Style) **Bellow Options** 7.5 Gallon Deep Bucket 15 Gallon 5 Gallon Drain **Base Options Options** Plug Valve Composite Cast Iron



# **OPW Installation and Maintenance Instructions**OPW 1-2100 Series Thread-On Grade Level Spill Containers

**IMPORTANT:** Please read these warnings and use the assembly instructions completely and carefully before starting. Failure to do so may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

**IMPORTANT:** The OPW 1-2100 Spill Container is pre-assembled for your convenience and ease of installation. Check to make sure the unit is intact and undamaged and all parts have been supplied. Never substitute parts for those supplied. Doing so may cause product failure.

**WARNING-DANGER:** Using electrically operated equipment near gasoline or gasoline vapors may result in a fire or explosion, causing personal injury and property damage. Be sure that the working area is free from such hazards, and always use proper precautions.

NOTE: At all times when product is in the storage tank keep the riser pipe capped, so the vapors cannot escape into the environment.

Notice: OPW products must be used in compliance with applicable federal, state, and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials, and specification are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

#### **Standard Product Warranty**

OPW warrants that products sold by it are free from defects in materials and workmanship for a period of one year from the date of manufacture by OPW (ECO products two years from date of manufacture.) Proof of purchase may be required. As the exclusive remedy under this limited warranty, OPW, will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one year date of manufacture period (repairs, replacements, or credits may be subject to prorated warranty for remainder of the original warranty period, complete proper warranty claim

documentation required.) This warranty shall not apply to any product that has been altered in any way, which has been repaired by any party other than a service representative authorized by OPW, or when failure is due to misuse, or improper installation or maintenance. OPW shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, reinstallation, loss of profit, or any other cost or charges.

For any product certified to California 2001 standards, OPW warrants that product sold by it are free from defects in material and workmanship for a period of one year from date of manufacture or one year from date of registration of installation not to exceed 15 months from date of manufacture by OPW.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

In California it is prohibit to use spill container drain valves on spill containers that are exclusively used for vapor return risers. Install only 1-2100 Series Thread-On spill containers models equipped with a drain plug.

## 1-2100 Series Performance Specifications:

This Spill Container drain valve has been manufactured and tested to the following California specifications: Leak Rate at 0.17 CFH @ 2.0 " W.C.

#### **Torques Specification:**

Spill Container 4" NPT, 125 ft-lbs minimum to 250 ft-lbs maximum.

4" Nipple, 4" NPT, 125 ft-lbs minimum to 250 ft-lbs maximum.

Drain Valve clamps, 5/16-18 UN thread, 11.5 ft-lbs minimum to 13.5 ft-lbs maximum.

## OPW NO. 1-2100 SERIES GRADE LEVEL SPILL CONTAINER INSTALLATION INSTRUCTIONS:

#### Step1.

Per California SB-989, all metal must be protected from direct contact with the elements. Coat stainless steel band clamps with the following approved coatings. OPW SL-1100, 3M Underseal 08883 or Polyguard Mastic CA-9. Only the threaded hardware needs to be coated in the field.

#### Step 2: (See Figure 1 & 2)

Set riser pipe. "L" is the distance between the top of the riser pipe and finish grade.

 Model Series
 "L" Dimension

 1-2100, 5 Gallon
 L=15" (38cm)

 1-2100E, 7.5 Gallon
 L=21" (53cm)

(Deep Bellows Model)

1-2115, 15 Gallon L=20" (51cm)

<u>Note:</u> If using OPW FSA-400, add 3-1/4" to Dimension "L".

#### Step 3:

Deburr and thoroughly clean riser pipe. Apply pipe dope to riser threads. Pipe dope to be a non-hardening, gasoline resistant pipe thread seal compound.

#### Step 4:

Install OPW FSA-400 Face Seal Adapter onto riser using the OPW 61SA-TOOL. Torque to 125 ft-lbs min. to 250 ft-lbs max.( 4" NPT). Apply pipe dope to FSA-400. Pipe dope to be a non-hardening, gasoline resistant pipe thread seal compound.

#### Step 5:

Install spill container by rotating the mounting ring until hand tight.

<u>NOTE</u>: Do not attempt to completely tighten the container by using the mounting ring

#### Step 6:

Finish tightening the spill container with the OPW 61SA-TOOL. Torque to 125 ft-lbs min. to 250 ft. Lbs. max. (4" NPT)

#### Step 7: (See Figure 2)

Apply pipe dope to nipple and install. Pipe dope to be a non-hardening, gasoline resistant pipe thread seal compound. Use only factory made nipples. Nipples must be cut square and deburred. Torque to 125 ft-lbs min. to 250 ft-lbs max. (4" NPT). Torque value is based on rotation at the center of pipe. For standard cover models install adaptor and dust cap. For sealable cover (1SC) models, install a standard 4" pipe cap to support adjustment system. (Adaptor and

dust cap must be installed in sealable cover (SC) models after concrete has dried.

<u>Note:</u> Nipple length is determined by measuring from the bottom of the threaded portion of the base to the bottom of the cover. Then subtract 2" for clearance, height of adaptor and height of cap. Range of nipple lengths that can be used in all of the OPW spill containers: 4" minimum to 14" maximum.

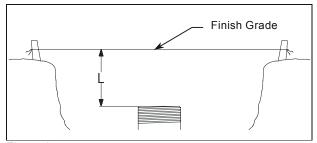


Figure 1

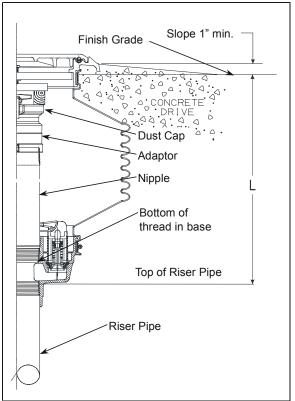


Figure 2

#### **Step 8:** (See Figure 3 & 4)

Install adjusting system beneath tabs on mounting ring. See Figure 3 for standard cover models. See Figure 4 for sealable cover models. Add shims as needed and adjust with screw. (Shims must be cut to size for sealable cover models.) The height can be increased up to 1" (2.5cm).

<u>Note:</u> The adjustment should not be more than 1" from the initial length of the unit.

#### Step 9:

Upon preliminary installation perform the California Test Procedures. Their Test Procedures will check the seals between the drain valve, nipple and rotatable adapter. To test the spill containers base and bellows fill the container with water. A drop in the water level of 1/16" or greater after one hour means that a leak exists. To determine where the leak is, look for a steady stream of bubbles coming from one of the joints or water leaking on the outside of the bucket. NOTE: Do not drain the water into the UST after the test is complete. Water must be disposed of per local requirements for hazardous waste. If the leak cannot be corrected the spill container should be replaced with another.

#### Step 10: (See Figure 2)

Before pouring concrete, place plastic over the cover and mounting ring protecting them from concrete splash. Double check that the unit is level and at proper grade height. Pour concrete per figure 2. Ramp or dome the concrete away from the mounting ring. There should be a minimum of 1" slope to finish grade. The concrete surface should start at the bottom edge of the watershed slots and tapered down to grade level.

### <u>NOTE:</u> Do not stand on spill container before concrete sets up.

Remove plastic from cover after concrete has dried. Remove adjustment system. Adaptor and tight fill cap can now be installed in sealable cover models. Re-test the spill containers for leaks as described in step 9, after the concrete has set up.

#### **Operation and Maintenance:**

After each fuel delivery, the operator must remove any standing fuel from the container. Fuel can be removed by actuating the drain valve or with a gasoline absorbing disposable towel.

Annually: Inspect and clean the interior of the spill container and drain valve screen. Remove accumulated dirt and grit. If the drain valve screen becomes clogged, remove the valve, soak in water and use high-pressure air to clean. Reinstall the drain valve to its proper position and test the valve per the appropriate California Test Procedure. If problems persist, replace the drain valve with P/N 1DK-2100-EVR (specified torque 11.5 ft-lbs min to 13.5 ft-lbs

max, 5/16-18 UN thread). The sealable cover (1SC) adjustment nut is set at the factory, but due to environmental conditions it may be necessary to adjust it to either improve sealing or ease cover removal.

## Important: Leave these instructions with Station Operator.

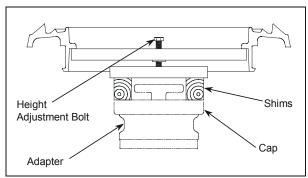


Figure 3 – Standard Cover Model Height Adjustment

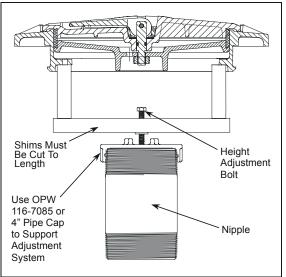


Figure 4 - Sealable Cover Model Height Adjustment



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#### Figure 2F



**IMPORTANT:** Please read these warnings and use the assembly instructions completely and carefully before starting. Failure to do so may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

**IMPORTANT:** Check to make sure the unit is intact and undamaged and all parts have been supplied. Never substitute parts for those supplied. Doing so may cause product failure and void warranty.

**WARNING-DANGER:** Using electrically operated equipment near gasoline or gasoline vapors may result in a fire or explosion, causing personal injury and property damage. Be sure that the working area is free from such hazards, and always use proper precautions.

NOTE: At all times when product is in the storage tank keep the riser pipe capped, so the vapors cannot escape into the environment.

The OPW 1DK is an optional drain valve replacement kit for the OPW 1 Spill containers series. It is designed to return incidental spillage of liquid back to the underground storage tank.

#### **HOW TO INSTALL**

- Remove and discard existing drain valve and Oring.
- Clean any dirt or debris from the sealing surface where the new drain valve will be installed.
- Apply any common grease or light oil to the new supplied O-ring. Assemble the O-ring into the spill container base.
- Insert the 1DK into the spill container O-ring. Be sure that the drain valve seats flush with the floor of the spill container base.
- 5.The pull lever of the 1DK MUST be positioned halfway between the riser pipe nipple and the spill container bellows. Rotate the drain valve until that position is attained.
- 6. Secure the 1DK by installing the provided retaining clips and nuts. Tighten the nuts to a torque of 11.5 ft-lbs min. to 13.5 ft-lbs max.
- 7.The drain valve is now installed and ready for testing.

#### **HOW TO TEST**

Upon preliminary installation perform the California Test Procedures. Their Test Procedures will check the seals between the drain valve, nipple and rotatable adapter. To test the spill containers base and bellows fill the container with water. A drop in the water level of 1/16" or more after one hour means that a leak exists. To determine where the leak is, look for a steady stream of bubbles coming from one of the joints. **NOTE:** Do not drain the water into the UST after the test is complete. Water must be disposed of per local requirements for hazardous waste.

If a leak is observed in the Test Procedure, check to see that the drain valve poppet is sealing properly. To do this, lift up the drain valve pull chain several times to actuate the poppet. This will ensure that the drain valve poppet is seating properly. If this doesn't correct the leak remove the 1DK valve and inspect the O-ring for nicks or tears, replace if needed, also clean the sealing surfaces of the spill container base that the 1DK valve and O-ring are installed into. Reinstall 1DK valve and repeat test.

If spill container passes the Test Procedure but does not hold water then there is a leak in the bucket and will need to be replaced.

#### **Operation and Maintenance:**

To open, pull drain valve chain up and hold open until liquid is drained. To close, release chain

After each fuel delivery, the operator must remove any standing fuel from the container. Fuel can be removed by actuating the drain valve or with a gasoline absorbing disposable towel.

Annually: Inspect and clean the interior of the spill container and drain valve screen. Remove accumulated dirt and grit. If the drain valve screen becomes clogged, remove the valve, soak in water and use high-pressure air to clean. Reinstall the drain valve to its proper position and test the valve per the appropriate California Test Procedure

Important: Leave these instructions with Station Operator.

**Notice:** OPW products must be used in compliance with applicable federal, state, and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. OPW makes no warranty of fitness for a particular use. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials, and specification are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

#### **Standard Product Warranty**

OPW warrants that products sold by it are free from defects in materials and workmanship for a period of one year from the date of manufacture by OPW (ECO products two years from date of manufacture.) Proof of purchase may be required. As the exclusive remedy under this limited warranty, OPW, will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one year date of manufacture period (repairs, replacements, or credits may be subject to prorated warranty for remainder of the original warranty period, complete proper warranty claim documentation required.) This warranty shall not apply to any product that has been altered in any way, which has been repaired by any party other than a service representative authorized by OPW, or when failure is due to misuse, or improper installation or maintenance. OPW shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, reinstallation, loss of profit, or any other cost or charges.

For any product certified to California 2001 standards, OPW warrants that product sold by it are free from defects in material and workmanship for a period of one year from date of manufacture or one year from date of registration of installation not to exceed 15 months from date of manufacture by OPW.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.



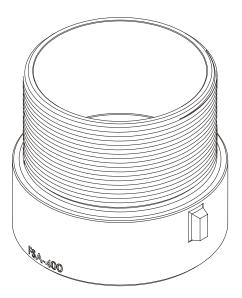
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#### Figure 2G

#### **Gasket Seal Adaptor**

#### **OPW FSA-400 Face Seal Adaptor**



#### **Operation and Maintenance**

- 1. Apply non-hardening, gasoline-resistant, pipe thread seal compound to the threads.
- 2. Tighten the FSA-400 onto the riser pipe with a torque of 125 ft-lbs minimum to 250 ft-lbs maximum. Use the OPW 61SA-TOOL to install.

#### **Standard Product Warranty**

OPW warrants that products sold by it are free from defects in materials and workmanship for a period of one year from the date of manufacture by OPW (ECO products two years from date of manufacture.) Proof of purchase may be required. As the exclusive remedy under this limited warranty, OPW, will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one year date of manufacture period (repairs, replacements, or credits may be subject to prorated warranty for remainder of the original warranty period, complete proper warranty claim documentation required.) This warranty shall not apply to any product that has been altered in any way, which has been repaired by any party other than a service representative authorized by OPW, or when failure is due to misuse, or improper installation or maintenance. OPW shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, reinstallation, loss of profit, or any other cost or charges.

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#### Figure 2H



**IMPORTANT:** Please read these warnings and use the assembly instructions completely and carefully before starting. Failure to do so may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

**IMPORTANT:** Check to make sure the unit is intact and undamaged and all parts have been supplied. Never substitute parts for those supplied. Doing so may cause product failure.

**WARNING-DANGER:** Using electrically operated equipment near gasoline or gasoline vapors may result in a fire or explosion, causing personal injury and property damage. Be sure that the working area is free from such hazards, and always use proper precautions.

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misuse, or improper installation or maintenance. OPW shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, reinstallation, loss of profit, or any other cost or charges.

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THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

#### **61SALP Performance Specifications:**

This Rotatable Adaptor has been manufactured and tested to the following California Specifications: Rotatable 360°, Static Torque maximum 108 in-lbs.

#### **Preventative Maintenance:**

Annually, inspect the adaptor for large dents, cracks or deformation. Replace if necessary. The rotation mechanism is not field serviceable.

#### **Replacement Parts:**

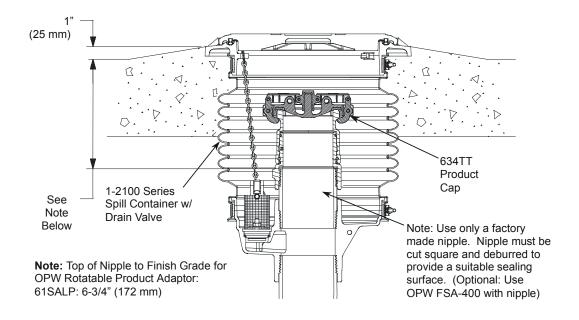
Nipple sealing gasket OPW P/N: H09039M.

#### **Torque Specification:**

Adapter, 4" NPSM, 90 ft-lbs minimum to 110 ft-lbs maximum.

Important: Leave these Installation Instructions with the Station Operator.

## 61SALP Rotatable Product Adaptor INSTALLATION INSTRUCTIONS



#### Step 1

The riser nipple in the spill container must be cut square and deburred. See drawing note for the correct distance between the top of the nipple and finished grade. (Optional: Use a OPW FSA-400 Face Seal Adapter with nipple. Add 3-1/4" to distance from top of nipple to finish grade).

#### Step 2 (Optional)

Apply pipe dope to the nipple. Pipe dope to be non-hardening, gasoline resistant pipe thread seal compound.

#### Step 3

Tighten the Rotatable Adaptor onto the nipple with a torque of 90 ft-lbs min. to 110 ft-lbs max this will be enough torque to seat and seal the gasket. Use an OPW 61SA-TOOL to install rotatable adaptor.



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#### Figure 2I



**IMPORTANT:** Please read these warnings and use the assembly instructions completely and carefully before starting. Failure to do so may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

**IMPORTANT:** Check to make sure the unit is intact and undamaged and all parts have been supplied. Never substitute parts for those supplied. Doing so may cause product failure.

**WARNING-DANGER:** Using electrically operated equipment near gasoline or gasoline vapors may result in a fire or explosion, causing personal injury and property damage. Be sure that the working area is free from such hazards, and always use proper precautions.

NOTE: At all times when product is in the storage tank keep the riser pipe capped, so the vapors cannot escape into the environment.

Notice: OPW products must be used in compliance with applicable federal, state, and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials, and specification are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

#### **Standard Product Warranty**

OPW warrants that products sold by it are free from defects in materials and workmanship for a period of one year from the date of manufacture by OPW (ECO products two years from date of manufacture.) Proof of purchase may be required. As the exclusive remedy under this limited warranty, OPW, will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one year date of manufacture period (repairs, replacements, or credits may be subject to prorated warranty for remainder of the original warranty period, complete proper warranty claim documentation required.) This warranty shall not apply to any product that has been altered in any way, which has been repaired by

any party other than a service representative authorized by OPW, or when failure is due to misuse, or improper installation or maintenance. OPW shall have no liability whatsoever for special, incidental or consequential damages to any party, and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, reinstallation, loss of profit, or any other cost or charges.

For any product certified to California 2001 standards, OPW warrants that product sold by it are free from defects in material and workmanship for a period of one year from date of manufacture or one year from date of registration of installation not to exceed 15 months from date of manufacture by OPW.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

#### **61VSA Performance Specifications:**

This Rotatable Adaptor has been manufactured and tested to the following California specifications: Rotatable 360°, Static torque of 108 ft-lbs.

#### **Preventative Maintenance:**

Annually, inspect the adaptor for large dents, cracks or deformation. Replace if necessary. The rotation mechanism is not field serviceable.

Check the vapor poppet for damage and ensure that the poppet seats evenly with the adaptor. Remove any foreign objects from the vapor poppet's seal. The vapor poppet seal is not field serviceable.

#### **Replacement Parts:**

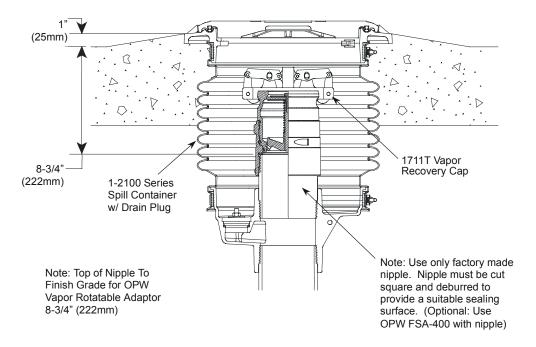
Nipple sealing gasket OPW P/N: H09039M.

#### **Torque Specification:**

Adaptor, 4" NPSM, 90 ft-lbs minimum to 110 ft-lbs maximum.

Important: Leave these Installation Instructions with the Station Operator.

## **OPW 61VSA Series Poppetted Rotatable Vapor Adaptor INSTALLATION INSTRUCTIONS**



#### Step 1

The riser nipple in the spill container must be cut square and deburred. See drawing note for the correct distance between the top of the nipple and finished grade. (Optional: Use an OPW FSA-400 Face Seal Adaptor with nipple. Add 3-1/4" to distance from top of nipple to finish grade).

#### Step 2 (Optional)

Apply pipe dope to the nipple. Pipe dope to be non-hardening, gasoline resistant pipe thread seal compound.

#### Step 3

Tighten the Rotatable Adaptor onto the nipple with a torque of 90 ft-lbs min. to 110 ft-lbs max, this will be enough torque to seat and seal the gasket. Use a 61SA-TOOL to install rotatable adaptor.



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## OPW Installation Instructions 61SA-TOOL Multipurpose Installation Tool

IMPORTANT: Please read all warnings and follow the installation instructions completely and carefully. Failure to do so will void all warranties and may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

WARNING - DANGER: Using electrically- operated equipment near gasoline or gasoline vapors may result in fire or explosion, causing personal injury and property damage. Be sure that the working area is free from such hazards, and always use proper precautions.

WARNING: Proper operation is dependent on proper installation and regular maintenance. The following instructions are provided to assist you in properly installing rotating product adaptors and spill container. Failure to follow these instructions may cause failure to the system, resulting in a hazardous condition.

## HOW TO USE 61SA-TOOL TO INSTALL A 61SA, 61VSA, 61SALP, AND FSA-400

- Slide the rotatable adaptor socket of the assembled tool onto the appropriate lugs of the necessary product. See Figure 1.
- 2.) Rotate the tool clockwise to tighten the product to the riser pipe.
- Remove handle by removing screw "A" and use the 7/8" hex to attach torque wrench and tighten to specified torque per each products instruction sheet.

CAUTION: DO NOT over torque product. Doing so may cause failure to the system resulting in a hazardous condition.

#### HOW TO USE 61SA-TOOL TO INSTALL A #1 SERIES SPILL CONTAINER BASE

- Remove the rotatable adaptor socket from the base bar by taking out screw "B". The finished assembly should be as seen in Figure 2.
- 2.) Slide the 61SA-TOOL onto the spill container base inside the appropriate slots.
- Rotate the tool clockwise to tighten the product to the riser pipe at the given torque values per the products instruction sheet.

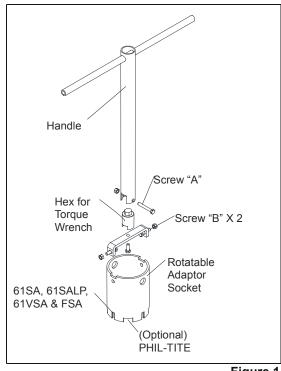


Figure 1

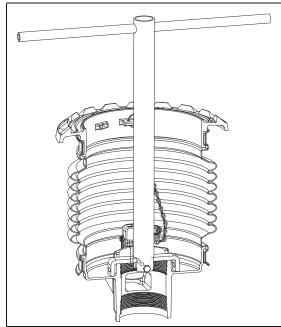


Figure 2

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For any product certified to California 2001 standards, OPW warrants that product sold by it are free from defects in material and workmanship for a period of one year from date of manufacture or one year from date of registration of installation not to exceed 15 months from date of manufacture by OPW.

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